

State of Alaska
**ALASKA RETIREMENT MANAGEMENT BOARD
MEETING**

Location
Dena'Ina Convention Center
K'enakatnu Room

MINUTES OF
April 23-24, 2015

Thursday, April 23, 2015

CALL TO ORDER

VICE-CHAIR SAM TRIVETTE called the meeting of the Alaska Retirement Management Board (ARMB) to order at 9:00 a.m.

PUBLIC MEETING NOTICE

JUDY HALL confirmed that public meeting notice requirements had been met.

ROLL CALL

Eight ARMB trustees were present at roll call to form a quorum.

Board Members Present

Gail Schubert, *Chair* (Absent April 23)
Sam Trivette, *Vice-Chair*
Gayle Harbo, *Secretary*
Tom Brice
Kristin Erchinger
Commissioner Sheldon Fisher
Commissioner Randall Hoffbeck
Martin Pihl
Sandi Ryan

Board Members Absent

None

Investment Advisory Council Members Present

Dr. William Jennings
Dr. Jerrold Mitchell
Robert Shaw

Department of Revenue Staff Present

Gary M. Bader, Chief Investment Officer
Scott Jones, State Comptroller
Pamela Leary, Director, Treasury Division
Zachary Hanna, State Investment Officer
Bob Mitchell, State Investment Officer
Judy Hall, Board Liaison

Department of Administration Staff Present

Kevin Worley, Chief Financial Officer, Division of Retirement & Benefits
John Boucher, Deputy Commissioner, Department of Administration

Consultants Invited Participants, and Others Present

Stuart Goering, Department of Law, Assistance Attorney General
Jim Chambliss, Pathway Capital Management
Canyon Lew, Pathway Capital Management
Roger Ibbotson, Zebra Capital
John Holmgren, Zebra Capital
Peter Schaffer, Zebra Capital
Chris Dyer, T.Rowe Price
Charles Shriver, T.Rowe Price
Toby Thompson, T.Rowe Price
John Plowright, T.Rowe Price
Rosaline Jacobsen, State Street Global Advisors
Ric Thomas, State Street Global Advisors
Eric Wolfe, Prisma Capital Partners
Helenmarie Rodgers, Prisma Capital Partners
Paul Erlendson, Callan Associates, Inc.
Dana Brown, Callan Associates, Inc.

APPROVAL OF AGENDA

MS. HARBO moved to approve agenda. MS. ERCHINGER seconded the motion.

The agenda was approved as written.

APPROVAL OF MINUTES: February 12-13, 2015

MR. BRICE moved approval of the February 12-13, 2015 minutes. MR. PIHL seconded the motion.

1. CHAIR REPORT

Chair was not present.

PUBLIC/MEMBER PARTICIPATION, COMMUNICATIONS AND APPEARANCES

None

2. COMMITTEE REPORTS

A. Actuarial Committee

MS. ERCHINGER reported that the new Actuarial Committee met for the first time yesterday. She stated the purpose of the actuarial committee is to give an opportunity to dialogue with the actuaries regarding the valuations and make sure there is incorporation of recommendations. MS. ERCHINGER advised the Board that although the committee reviewed a proposed committee charter that was crafted based on state statutes and outlined and roles and responsibilities for the committee, at the request of a committee member, additional information and review by the Department of Law will take place before the next meeting of the committee which is expected to take place in May.

MS. ERCHINGER further reported on the discussion regarding the FY '14 valuation update and the associated challenges that result from recent legislation that requires eliminating the lag in setting the contribution rate and asset smoothing, as well as completing the valuations on all the plans and the reviews required by statute. She noted that it's a hard working committee and the committee did review more in depth the eliminating of the lag in contribution rate and a brief discussion ensued on legislative intent regarding asset smoothing, but three hours didn't prove to be enough time to get through the agenda so some topics were placed as future agenda items.

MS. ERCHINGER reported that the committee will meet again in May; items for that agenda include a legal report on the committee's charter, discussion of legislative intent and asset smoothing, and a review of the previous review actuary's findings. She stated that the committee agreed to review those findings more in depth and recommend to the full Board closure or a course of action on each of those findings. She said future discussion with respect to health care trend assumptions and other items such as payroll base and payroll growth assumptions in the DC health plan will be scheduled.

MS. HARBO commended MS. ERCHINGER for her work.

COMMISSIONER HOFFBECK questioned the ability of the committee to work without a charter in place. MS. HALL explained that the committee doesn't act independently, but makes recommendations to the Board for action. MR. GOERING affirmed that with the committee appointment by the Chair, the committee could continue meeting until the charter can be refined and brought forward for approval at the Board level.

B. Defined Contribution Plan Committee

VICE-CHAIR TRIVETTE reported that the committee heard reports from MR. BADER on the history of the DC Committee, an updated from Deputy Commissioner Boucher regarding the retiree health plan, along with an update from T. Rowe Price, who provide investment options for the defined contribution plans. The committee also reviewed the legislation recently passed setting up Roth Deferred Comp options for employees, and services provided by Great West, the record-keeper for participants (now Empower). The committee requested that Great West continue its questionnaire for participants in the future.

MS. HALL noted the final action at the DC Plan Committee was slight revision of the charter. VICE-CHAIR TRIVETTE recommends instead of current wording suggested is that we take the word "director" out and put "the staff."

Moved by MR. BRICE and seconded by COMMISSIONER FISHER.

Motion passes.

3. Retirement & Benefits Division Report.

MR. BOUCHER stated that the administration's goal was moving the ball forward toward implementation of a defined contribution health plan.

MR. BOUCHER next spoke about the legislative session, which included introduction of the bill establishing Roth contribution accounts for participants, and thanked KATHY LEA and ANDY MILLS for moving the legislation forward. The basic idea of the bill was to offer employees who are currently participating in the deferred compensation program an option to have those contributions taxed before they go into the account, so that the distributions, should they be a qualified distribution, would be tax-free.

He noted that two other defined benefit bills are being tracked: HB 90 and SB 83. HB 47 is also of interest, which modifies the 2008 salary floor for certain employers that have sustained a 25% decrease in population between 2000 and 2010. Another feature of that bill is that it also changes the interest rate that those employers would be charged from 12% to the actuarially assumed rate of 8%. The impact of that bill is if a municipality should qualify, that their contributions would be based on their current payroll rather than the 2008 floor. The three communities that are in pretty desperate situations are Galena, Pelican and St. George.

KEVIN WORLEY, Chief Financial Officer, Retirement and Benefits, provided information on the health reimbursement arrangement established under the Alaska Statutes for the DC plan. MS. HARBO asked whether employees are aware of their accounts and the difficulty in getting members to look at their Great West statements. She also questioned what happens to the HRA account when members leave since only the employer and not the employee has terminated.

MR. WORLEY replied that first, at this time, participant statements do not include information related to the HRA account, and second, AS 39.40.430, which is exclusive benefit, defines that the money basically stays in the plan.

VICE-CHAIR TRIVETTE followed up with a question about fees paid by the HRA. MR. WORLEY replied that fees are covered within the statute and administrative code and will be paid out of the investment earnings from the plan. There is a letter from Ice Miller that covers the HRA administrative expenses and payments.

VICE-CHAIR TRIVETTE requested that DRB provide the actuarial contract costs from 2006 forward. A summary listing is provided just by year, not what was charged for each of the plans, but by year of the contract that was paid to Buck, broken out between fixed fee as defined in our contract, and variable fee, meaning items that were asked for outside of the normal products that Buck would produce, such as fiscal note information, analysis. MR. BOUCHER noted to get an idea of the type of scale that Buck is working in the fiscal note arena, there's \$100,000 allocation within the budget that is set aside for those types of purposes.

4. Treasury Division Report

MS. LEARY provided an update on the status of the budget given that the legislative session has not yet ended. Although not finalized, the expectation is that it will not contain salary increases, but will include an increment for manager fees as well as two additional investment staff. One of two IT staff is terminating as a result of the IT consolidation, which is still in play.

5. Chief Investment Officer Report

MR. BADER gave an update on the Trumbull Property Fund and recommended that the Board take no action, but just be aware that the information is out there and people are communicating about the investment managers and how the portfolio is being invested.

MR. BADER advised the Board that the funds have been rebalanced multiple times, with one example provided, but all transactions are on file at the office. He advised that there were no additions or deletions to the watch list.

MR. BADER described the morphing of accounts with some of the absolute return managers going into slightly different investment profiles creating funds A and B, for example. There is a letter showing a transfer from Blue Glacier Fund on January 26th, and it reached a total of \$18 million. Other transactions that took place as well during this time are also noted. \$50 million was invested in the Lexington Secondary Fund which was done under the authority delegated to the CIO to make these investments consistent with Board policy. There have been previous investments with Lexington, and they have been a good performing manager for the ARM Board.

MR. BADER's informed the Board that money was moved into Master Limited Partnerships, which are primarily energy-related investments. The price of energy has dropped precipitously; the stocks of the companies have dropped precipitously, and staff views this as a good time to be making this transfer - you make investments if you're attempting to buy low and sell high, this is when you do it.

MR. BADER notified the Board that 300 million was transferred from cash to intermediate treasury pool; transferred 200 million from cash to fund the investment in QMA, which the Board approved a few months ago, which is a market participation strategy fund. He noted additional transfers as follows:

- Sold \$100 million each of Russell 1000 Growth and 1000 Value to be invested in international markets.
- Transferred \$290 million from intermediate bond to the cash account.
- Transferred \$575,000 to the Polar Bear Fund that is managed by Prisma, then transferred another \$365,000.

MR. BADER acknowledged the resignation of Paul Hackenmueller, and noted a change in the relationship with Callan from Dana Brown to Steve Center.

6. Fund Financial Report

SCOTT JONES presented the fund financials for month ending February 28. For the month ended, the PERS system had \$16.1 billion; TRS, \$7.6 billion; Judicial System, \$172 million; military system, \$38 million; supplemental benefit system, \$3.4 billion; and deferred comp, \$813.5 million. Total assets were \$28.1 billion, and year to date there were \$734.5 million worth of revenues. At the end of that time there had been two of the \$1 billion transfers with the third one coming in in March. He reported the change in invested assets year to date was about 8.37%, roughly 2-3/4% was due to income.

Referring to the Actual Asset Allocation vs. Target, MR. JONES noted that everything was within the bands and near its target for all the plans. He said March income was down for the month; with about \$92 million worth of losses for the defined benefit and DCR non-participant directed plans, but in April it is up to \$369 million, so the year-to-date gains were about \$832 million, or an increase of about 3.7% in assets due to income. He reported that as of Monday, total non-participant directed assets were at about \$24.3 billion.

MS. HARBO asked if the third billion dollar transfer was received; MR. JONES replied that it did in March. VICE-CHAIR TRIVETTE stated that it is not reflected in the reports yet, but the March report is posted on the website.

MS. HARBO requested clarification of the funds for DC people. MR. WORLEY noted that just because members retire doesn't mean they are out of the system, and that a disbursement listing of the DC refunds that occurred wasn't listed, but going forward he is going to try and do that on a quarterly basis.

7. Private Equity Tactical Plan

Action: Resolution 2015-02 – Private Equity Plan

ZACH HANNA, State Investment Officer, reported on the private equity staff presentation as part of the annual review and planning cycle for the Board's investments in private equity. A detailed written plan can be found in the Board packet. He noted that Abbott, Pathway, and Callan have all reviewed the plan and the recommendations. MR. HANNA provided an overview of the private equity asset class, a market review, a discussion of the ARMB portfolio, and the recommended 2015 tactical plan.

MR. HANNA provided further background on the motivation, attributes and structure of private equity. Private equity groups generally make illiquid, long-term investments in private companies. Fund sponsors invest in private equity for higher returns with diversification as a secondary factor. The Board's return expectation for private equity is 350 basis points over the Russell 3000 index.

MR. HANNA reviewed the private equity market: 2014 was the fifth strong year for private equity exits and liquidity and was a big step up from 2013. The largest source for liquidity is the M&A market, which is mainly the sale of private companies to strategic corporate inquirers. This market had a large increase in 2014 with 278 billion of activity. The second largest source of liquidity is the public equity market through initial public offerings. This market increased \$122 billion in 2014 and remains very active for both buyout and venture capital partnerships. Remaining source of liquidity is through recapitalizations.

MR. HANNA reported that since inception, the ARMB private equity program has generated \$800 million in additional fund value compared with investing in public markets alone. For 2014 the strong exit environment and the maturity of the ARMB's portfolio resulted in record distributions of \$482 million with distributions increasing annually for the past six years. He noted that investment activity increased also to \$329 million in 2014, in line with the market. MR. HANNA stated that overall the portfolio was a significant cash generator for the retirement systems providing net cash flows of \$153 million, 9% of beginning asset values. 2015 distributions to date through March are on a similar pace to 2014 with a modest increase in contributions. He said returns have been relatively strong, with an internal rate of return or IRR since inception of 11.1%.

MR. HANNA described the portfolio as well diversified by strategy. The targets are 25% to venture capital, 40% to buyout, and 35% special situations. The portfolio is close to these guidelines and staff expects diversification to remain in line with long-term targets.

MR. HANNA stated that the commitment target for 2014 was \$450 million and that during the year, \$594 million was committed to 31 partnerships: 177 million by Abbott, 182 million by Pathway, and 235 million directly. The direct commitments were over target largely due to the \$100 million investment in KKR Lending Partners in December.

MR. PIHL inquired about special situations. MR. HANNA replied that special situations are probably the least special of the categories; in some sense venture capital is probably the most special in terms of where access is at a premium and where it's probably most difficult to get access. That is some of what is reflected in the direct portfolio is that we haven't done any direct venture capital. It's a more targeted risk exposure and access is more difficult. There's also a lot of venture capital exposure through our other two managers. However, of the multi-strategy funds that have been done, such as Warburg Pincus, they do have some venture exposure embedded in the portfolio; and the secondary fund investments that we've also done as part of the direct investments also have some venture capital exposure.

MR. HANNA described the staff recommendation commitment target for 2015 is \$197 million for both Abbott and Pathway; and \$125 million for direct partnership investments with a gradual annual increase. He pointed out the Board's private equity allocation model showing forward commitment estimates and rejections as a percentage of the total fund. With the projected commitment pacing, private equities should move to its recommended allocation target of 10% over the ten-year planning horizon, and will likely continue to be below this target over the short-term.

The staff recommended that the Board adopt Resolution 2015-02 approving the 2015 Annual Tactical Plan.

Motion to adopt Resolution 2015-02 approving the 2015 Annual Tactical Plan made by MS. HARBO and seconded by MR. BRICE.

A roll call vote was taken, and the motion passed unanimously.

VICE-CHAIR TRIVETTE recessed the meeting from 10:23 a.m. to 10:39 a.m.

8. Pathway Capital Management

MR. CHAMBLISS provided a company overview. He stated that Pathway has devoted more resources in the area of secondaries, which MR. CANYON will speak to, and devoted more internal resources to secondary transactions. Pathway has devoted resources to co-investments alongside our general partners on a no-fee and no-carry basis for some of our clients who have asked. He said assets under management now at \$30.4 billion, compared to \$28.6 last year with personnel growing to 118 partners and employees compared to 105 previously.

MR. CHAMBLISS stated he is proud of the depth and the size of the organization which has 19 partners who remain 100% independent and employee-owned. The support staff consists of 23 people in accounting; three now in compliance with the chief compliance officer; six in tax; four in legal.

MR. CHAMBLISS described the current environment, focusing on the headline topics in private equity: the primary topic of discussion within private equity in 2014 was record liquidity; \$500 billion of M&A activity for private equity-backed companies is a record, 80% larger than 2013,

and 20% larger than the last record, which was 2007. He also noted the record number of IPO issuances of \$70 billion.

Next, MR. CHAMBLISS discussed SEC scrutiny of the private equity class specifically in the areas of fee disclosure, fee transparency and fee allocation. He reported that Pathway sent out a very lengthy questionnaire to the general partners on these topics and was pleased with the information received. He noted that despite concern early on, it is going to increase communication, increase transparency, so sometimes additional oversight as investors of the asset class is a good thing.

MR. CHAMBLISS then described the ever-increasing competition and growth of the asset class, focusing on rising prices. He stated that coming out of the financial crisis, 2014 is actually the lowest in terms of year-over-year increase in investment pacing.

MR. CHAMBLISS spoke about venture capital space with prices are rising, returns have been great in this space. He noted the new term of “unicorn” which made the cover of Fortune magazine and is a venture capital private investment that reaches a private valuation at investment of a billion dollars or greater. There were 80 of these transactions in 2014.

MR. CHAMBLISS discussed restraint on money being put to work - a combination of increased fundraising with limited capital, resulting in a concept called dry powder. He said this is essentially money sitting on the sidelines that’s been committed to private equity funds that has yet to be put to work. COMMISSIONER HOFFBECK expressed concern about money sitting on the sidelines and asked about the best strategy in investing these funds.

MR. CHAMBLISS stated market timing in a liquid asset class is very hard to do, but market timing in an illiquid asset class is impossible. So you need to be very consistent year in and year out and be aware and knowledgeable of everything that sort of goes on, with a laser focus on investing with the most consistent, the most experienced, the most well-networked and cycle-proven managers in the world. The belief is that you will continue to outperform the public markets by a healthy margin. The prudent approach is to be very consistent in this asset class year in and year out.

COMMISSIONER HOFFBECK clarified that his concern wasn’t so much pulling back, but making a commitment if we have an idea whether we’re going to need to have a cash call in a year, three years, or five years and this makes a difference on how money is invested until the call occurs. MR. BADER stated the commitments are in place to Pathway and to other investment managers and real estate infrastructure, all the asset classes, but it is difficult sometimes to put assets to work. Investment managers will be measured on the basis of their investment performance. He noted that the portfolio has a lot of illiquid classes that are not up to the target. It takes a long time to get to the 10% and that’s the challenge, but the funds are kept in public equities while it’s waiting to be invested in private equity.

The final topic MR. CHAMBLISS discussed is oil prices and the impact on private equity. He stated that Pathway is not going to force money because of an interesting market. Prices are

rising, so we will stay the course using the same prudent approach, investing with the most respected, the most successful, well-networked and well-resourced private equity firms out there.

MR. BRICE asked to point out some bullet points on what was learned. MR. CHAMBLISS replied:

- Significant increases in fund size.
- Due diligence. The impact of this ever-increasing fund sizes, strategy drifts, purchasing different types of companies, and we saw it. When firms are successful, they're going to raise ever-increasing fund sizes.
- How the money was made. The underlying company's leverage and purchase price arbitrage or purchase price increases from buy to sell were a significant component of how money was made historically. Look at how these general partners have made money through this cycle. An important component is setting aside making money off leverage, making money off multiple arbitrage, but more along the lines of what are they doing with these businesses? Are they making them more efficient? Are they growing revenues? Are they growing cash?
- So believing in something that's sustainable going forward.

MR. ERLENDSON requested a view about whether or not the environment has changed in conjunction with the aging of people that were maybe the principals at the firm ten or 15 years ago and whether that is changing the way they evaluate the people within these organizations. MR. CHAMBLISS responded that private equity is very much a people business, when doing an analysis on historical companies, but at the end of the day investing in investment managers.

MR. LEW reported on portfolio update focusing on five main areas: new commitments, current diversification, cash flow activity, recent performance, long-term performance versus benchmarks.

Before delving in to the five areas, MR. LEW pointed out overall portfolio highlights:

- The portfolio has continued to perform very well since the last Board presentation in June of last year. With respect to new commitments, 452 opportunities were reviewed and added 19 partnerships to the portfolio over the last 12 months, committing 231.5 million on the ARM Board's behalf.
- Performance has been good with gains of 123.5 million, and one-year return of 15.8% in 2014.
- The underlying portfolio continues to grow. It now totals over 2,000 active holdings. Quite a few IPOs and exits from the portfolio led to record distributions last year.
- Stayed active with respect to monitoring the portfolio, which included attending 48 annual meetings, participating in 186 advisory board and monitoring meetings, and conducting 67 one-on-one meetings with managers in your portfolio.

COMMISSIONER FISHER asked about the valuation. When returns are shown, how are assets valued that haven't been exited from. MR. LEW responded they would use the valuations that are provided by the general partners of the funds themselves. Those values are assigned for buyout investments based on using public comps, transaction comps, discounted cash flow,

modeling, things like that. For venture capital funds, those investments are typically valued at the last round of financing, or using comps if it's been a while since the last round is raised.

COMMISSIONER FISHER requested clarification for the footnote on slide 18 that talks about the valuation asked if his understanding is correct that approximately 20% of the market value had not provided data? MR. LEW responded affirmatively. He said there is a lag when private equity general partners provide their financial statement's information and the year-end financials must go through the audit process. At the time of printing, there was still about 20% outstanding but in the subsequent two and a half weeks Pathway has received all of the information and the numbers are substantially similar to what is shown today.

COMMISSIONER FISHER inquired whether the estimated values are pretty representative, pretty accurate when an exit takes place. MR. LEW responded that the move to market-to-market in the private-equity industry always kind of raised some concerns. People have been very conservative in their valuations and would see a nice uplift upon exit. There was some worry that some of that conservative bias would be lost in the market-to-market movement, but have found that there still is some room for uplift upon exit.

MR. LEW reported that portfolio diversification at the company level shows diversification based on the market value of the portfolio's current 2,075 underlying holdings. Overall, the portfolio has grown by about 230 active holdings since the last Board presentation. It remains well diversified by strategy, industry, and geographic region.

MR. LEW noted that contribution activity picked up in 2014 and was the highest level since 2007, with distribution activity not only picking up but has in fact increased for the last five consecutive years totaling a record 247 million in 2014. The portfolio's been cash-flow positive, meaning that distributions exceeded contributions for the year. It's been cash-flow positive in each of the last four years. He reported that the first quarter of this year is a bit of an outlier in that three secondary transactions were completed during the quarter, and for the secondaries the majority of the capital is going to be funded on day one. COMMISSIONER HOFFBECK requested explanation of the secondary investment.

MR. LEW responded that secondary transactions result from situations where investors invest into private equity partnerships, called primary funds. They seek to exit those, so they sell them on the secondary market, which provides investors an opportunity to purchase those interests at a discount to NAV. This is an opportunistic way to acquire portfolios from highly thought of managers that have some pretty good insights. Typically they are funds that are already in the portfolio or in the broader Pathway portfolio where there is good insight into upcoming events and things like that where the price is favorable, so the holding period's typically shorter.

MR. LEW concluded with an update to a figure first shown to the Board last year that quantifies in dollar terms what a 530-basis-point premium to the Russell 3000 really means if you asked the question: What would my return have looked like if I instead took the cash flows that had been invested into the private equity portfolio and simply invested them into the Russell 3000 index? He stated the answer is the private equity portfolio generated an incremental \$374 million in

gains since the program's inception, or essentially twice the gains that you would have had had you just taken those cash flows and put them in the index.

VICE-CHAIR TRIVETTE thanked Pathway for the presentation.

COMMISSIONER HOFFBECK moved to go into executive session. MR. BRICE seconded the motion.

The Board was in executive session from 11:31 a.m. until 11:51 a.m.

When the Board came on back on record, VICE-CHAIR TRIVETTE stated that the Board discussed issues in executive session and there was no action taken.

VICE-CHAIR recessed the meeting from 11:51 a.m. to 1:16 p.m.

10. ZEBRA CAPITAL

Presenters for Zebra Capital are Peter Schaffer, the chief operating officer; Roger Ibbotson, founder chairman and chief investment officer; John Holmgren, the president.

MR. SCHAFFER provided a history of the company before talking about the Zebra Capital U.S. micro-cap strategy. Zebra Capital was founded in 2001 by Roger Ibbotson and Zhiwu Chen, former Yale professors. It is a fundamentally based systematic equity firm that runs a series of different investment products, both long-only and long/short. It has decades of research related to these processes and is a very established firm for practical implementation of these products and a very open collegial environment that's both transparent and open communication. The firm has about \$900 million in regulatory assets under management that's reported to the SEC. It's about 5% on long-only assets and 42% on long/short portfolios. A breakdown by investor type is 62% on the pension side, 24% institutional, 11% on fund-to-funds, and 3% on mutual funds.

MR. IBBOTSON presented the research and philosophy of Zebra showing the long run performance in the stock market versus the bond markets starting in 1926 with a dollar invested to 2014; shows the large-cap stocks with a 10.1% total return over this period. There is tremendous growth over time with a 10% return growing to over \$5,300. He noted that in small cap stocks, you see that a dollar over this 89-year period actually grew to over 27,000 times your money. There is only an extra 2% return in small caps. He said the small-cap space is an especially interesting space to get some good returns over the long run.

MR. IBBOTSON went on to describe this liquidity premium. He said all of the products are always research-based. The chart shows a dollar invested in the Russell 3000, a dollar invested in value stocks, and a dollar in growth stocks. The real key here is buying the less liquid, that being less popular stocks. The less popular stocks, the less liquid stocks have substantially higher returns, and the most liquid, kind of hot stocks have substantially lower returns.

MR. IBBOTSON reported that at the request of staff, Zebra put together a strategy to go for the big differences just looking at the micro-cap universe itself now. This comes with a Russell Microcap universe. There's almost a 10% difference in returns between the less popular and the more popular. Less popular stocks have lower risks and less popular stocks have a 20% standard deviation where the most popular hot stocks have a 34% standard deviation.

MR. HOLMGREN provided a clarification to Mr. Ibbotson's remarks: That the intersection of the less popular and strong fundamentals, is what we're buying. What we're doing is we're adding another dimension and that's this popularity dimension as a way of identifying stocks that are overlooked. He said Zebra is trying to find stocks that are overlooked, yet good companies, with the idea that they'll be recognized in the future, so the idea is to find stocks that are less popular today, that are fundamentally strong and will become popular in the future.

MR. BRICE requested a definition of interest whether it is trading volume on the market. MR. HOLMGREN replied that is correct, what we seek is for tangible metric of interest, so we're using turnover, and share turnover in particular – the number of shares traded relative to number of shares outstanding.

MR. HOLMGREN described the product in general, starting with the objective: To generate consistent returns regardless of market environment. Looking at the strategy, there is a slight value tilt so more of a core value, but much different than a traditional value manager and relative to other peer groups, very non-correlated. He noted that the target is about 2% annualized excess return above the index, seeking a beta in volatility of less than or similar to the Russell Microcap benchmark with no leverage in the strategy. He stated that at around 70% in turnover, realizing turnover is going to be something close to 50%, but 50 to 70%, in that range.

MR. HOLMGREN stated that one of the issues with this strategy is it's a capacity constrained and in the current environment, about \$500 million of AUM calls for careful managing.

He further described the strategy characteristics:

- Zebra strategy is an implementation of academic research. Zebra is built around strong academics, but also with a lot of practical experience. He on the implementation side; Peter Shaffer on the risk and oversight side.
- Secondly, a systematic use approach, not using factor models, rather an algorithmic process, very straightforward and very systematic implementation of process.
- Using behavioral concept. The whole idea of popularity is we really want to use a contrarian-like strategy where we want to go where other people aren't. And the whole idea of that four-by-four of the very popular micro-cap names do about 10% less annualized than the less popular names with much higher volatility.
- The unique nature of Zebra's strategy leads to portfolios that then to be relatively non-correlated with other investment strategies.

MR. HOLMGREN noted the criteria excludes the most highly traded names, so that quartile is being excluded from the universe and it also excludes the names that have the highest price impact. Using a metric called Amihud looking at how many shares or how much dollar volume does it take to move a stock by a certain percentage, looking at with high earnings yields or low

P/Es, both on a forward and trailing basis, and also looking at a strong profitability and quality for what's there.

DR. JENNINGS requested clarification regarding that second bullet, noting that it seems to be exactly the point of the strategy, the popularity seems to be that metric and asked what is the gap between the theoretical when you spun the tapes and came up with the table, and what we lose with that second bullet by excluding the most illiquid.

MR. IBBOTSON responded that originally everything was viewed as liquidity and it turns out that Amihud is a better measure of liquidity because it measures price impact, so the high price impact stocks are excluded; those are the most illiquid, but the lower turnover stocks are still captured.

MR. HOLMGREN then described the portfolio construction, looking at the sectors relative to the benchmark, keeping them at a market capitalization weight, then weighting the names with the investors by their revenues, and by their sales.

COMMISSIONER FISHER requested follow-up about the transaction cost assumptions as well as the length of forecast and the trading strategy for execution. MR. HOLMGREN responded that they used the ITG OPTI-3 model in estimating the transaction costs and assuming a transaction cost of 1.14% per year. To implement the portfolio, it would be less than a week to get in at 75 million. How we would trade this is a combination of a peer-to-peer trading, a buy-side trading network as well as with the typical kind of smaller cap brokers. So we'd be trading with UBS, Credit Suisse, Liquidnet, Morgan Stanley, ITG.

COMMISSIONER FISHER inquired that if these are less popular, is there a lot of opportunity for your peer-to-peer or your Liquidnets or others? MR. HOLMGREN replied this is definitely the case. He said the portfolio is holding 254 names out of a 1,560 stock universe, so about a 16% of the universe, and if you jump down to the active share, you have a 75% active share, so only about a 25% overlap with the index. MR. IBBOTSON added that because the bid-ask spread is actually a little lower on this portfolio than on the overall universe, because we're taking out these big price impact names, the turnover rates are substantially lower on this universe.

MR. SHAW asked a twofold question. (1), at page 15, which has the annualized or the annual returns. Without looking at a particular year but just a general economic environment, when does this type of strategy underperform? (2), on the issue of competition, if you believe in efficient market hypotheses, eventually competitive advantage gets dissipated because other smart people figure out what you're doing and replicate it and a lot of the excess returns go away, which has happened with numerous strategies.

MR. IBBOTSON responded to the first question by relating other studies that have been performed, showing where this really will underperform is in bubbles of any type. It's the popular stocks that do well in the bubbles; the less popular stocks do much worse in the bubbles. So you do the worst in bubbles; you do the best when bubbles pop. In other studies, the worst

bubble was actually 1999. And the performance of our strategies on backtest did poorly in 1999, but they did great when the bubbles popped in 2000 to 2002.

Responding to the second question on competition, MR. IBBOTSON stated that something is always going to be unpopular. If you think of just metrics, metrics can catch on; but the nice thing is the metric is picking up popularity and popularity's going to shift between one stock and another. So in general markets move toward efficiency, but there's always some aspect of the market that becomes unpopular and actually would benefit when the popularity shifts.

MR. ERLENDSON stated that one of the key elements about this is the whole efficacy of the turnover about rebalancing the portfolio, which he thinks and MR. HOLMGREN confirmed that it is rebalanced twice a year. MR. ERLENDSON wondered if there is any timing risk; is there a better time of a year to rebalance given that the other index providers have June and year-end big activities for rebalancing, is that a plus or a minus for the efficacy of realizing the gains that are sought?

MR. IBBOTSON responded that rebalancing generally occurs after the earnings reports are out. MR. HOLMGREN added that it is off cycle on the rebalancing and that here it is intra-month rebalancing.

MR. HOLMGREN summarized noting that this is a unique behavioral finance strategy that has been developed, combining the academic with practical experience. This generates very consistent returns. That 4% number holds up and is expected to continue going forward.

DR. JENNINGS noted briefly about being involved with Dimensional, and them having a patient trading strategy; this seems like this would be a natural place to apply something like that, and yet we heard that you're going to implement twice a year within a week. MR. HOLMGREN stated the rebalance period is not over a week. DR. JENNINGS stated you're saying you can get implemented very fast, you can move the portfolio around very quickly, and yet that seems to go against the kind of more patient trading when this seems a natural place to apply that, be a market maker and wait for people to come to you. He also mentioned a concern about the gap between the academic research and what will ultimately get implemented.

MR. IBBOTSON responded that the academic research is just semi-annual rebalancing, but in general we always try to have patient trading. We may not use the exact methods that Dimensional Fund Advisors uses, but this is an area where patient trading pays off; we never have to do a trade. We've got 250 stocks in this portfolio so you don't have to implement these, implement everything and get it done in a day or a week. What we're illustrating is if you needed the money, not that Alaska would need the money in a week but if you needed the money stocks are actually liquid enough that we could give you the money in a week; we wouldn't feel that we would want to trade it that way, generally. MR. HOLMGREN added that this is not an aggressive product; it is much more of a slower trading, and the trade cost is using much more of a passive trading methodology.

DR. MITCHELL expressed an interest in the backtesting procedures. MR. IBBOTSON responded that the strategy in many ways came through discussions with the staff after looking at

slide 8, which was from a published study "Liquidity as an Investment Style," which won the award for the best paper in the Financial Analyst Journal in 2013. He noted that in this study, sixteen different portfolios were looked at, independently sorted in terms of popularity, which in this case is the turnover rates (which is the same method we're using in the product), then divided into the categories of micro-caps, small-cap, mid-cap, and large-cap. MR. IBBOTSON stated that in looking at these published results, Staff recognized that there would be benefits to actually applying this in the micro-cap space. He said it works everywhere, but the micro-cap space is the best place it works.

MR. HOLMGREN added that being very careful using forward information and look-aheads as a part of the backtest and now showing results that can't be delivered. He noted there is a cross-check on the charts, page 9.

MR. BRICE asked if the 250 stocks were weighted towards a particular economic sector, or is there a particular weighting? MR. HOLMGREN answered that construction is sector neutral, cap-weighted sector neutrality, and then weighted by revenues within each of the names themselves.

MR. BRICE requested information on the assets under management or this strategy is right now. MR. HOLMGREN replied that there is no money being managed in the micro-cap space; this is very specialized to the Board and a few other accounts. MR. BRICE asked for clarification on the number of accounts, and MR. HOLMGREN replied there are three or four accounts of Board size.

11. T. Rowe Price

MR. BADER introduced T. Rowe Price, a firm with over a 20-year relationship with the State, primarily an investment manager for all of the defined contribution programs with over \$2 billion worth of assets under management.

CHRIS DYER added to Mr. Bader's introduction: the working relationship is over 23 years, with over \$3 billion in assets, an extremely significant relationship and one of the top two largest public fund relationships and it is the second oldest public fund relationship with T. Rowe. MR. DYER introduced John Plowright, a client service executive based in San Francisco; Charles Shriver, a member of the asset allocation committee and portfolio manager; and Toby Thompson, a co-portfolio manager.

MR. PLOWRIGHT provided additional details related to the client service team based in San Francisco, as well as additional members of the T Rowe Price team assisting on the ARMB mandate.

MR. SHRIVER reviewed some of the relationship milestones over the last 23 years with the State of Alaska, including the balanced trust evolution in 1992, the long-term balanced trust in 2001, and the extension of the retirement glide path in 2009 and the investment lineup expanded to include retirement date trusts out to 2055 which became the default option across all the

PERS, TRS and SBS plans. He noted there were also investment enhancements to a number of the underlying trusts in 2013.

DR. MITCHELL asked if the glide path is redone every once in a while to adjust for contemporary interest rates, for example, and other factors, or is this research that's done and it stays this way forever? MR. SHRIVER replied that it is a long-term evaluation. It is evaluated regularly. It is based upon long-term return assumptions in terms of the varying asset classes. DR. MITCHELL then inquired about the ten-year treasury assumption on fixed income. MR. SHRIVER responded that there is about a 4% return on the glide path over a longer term.

COMMISSIONER FISHER inquired if there is any thought that in this environment that bonds really, today, are not that conservative as an instrument in light of the current interest rate environment. MR. SHRIVER responded that the bonds offer an effective ballast to equities, that there are risks in bonds that have been less pronounced in recent years as rates have moved lower, but that there have always been interest rate risks, and it is likely to be a more dominant risk going forward, which is actually a key consideration in terms of enhancements made to the bond trust, in terms of a lesser duration profile than the aggregate index.

MR. SHRIVER continued with his presentation, adding that a key part of the glide path is really the higher equity allocation to support and sustain lifetime income over a 30-plus-year in retirement investment horizon, and acknowledging the role of asset allocation in the success of these portfolios. He noted that as enhancements were made, the glide path did not change, but rather introduced sectors that were felt would improve investment outcomes and key risk scenarios, such as rising interest rates.

MR. ERLENDSON asked how tight is adherence to these target weightings within this structure along the glide path and if the asset allocation committee has some latitude about running high or running low relative to these target weights. MR. SHRIVER responded that looking at the segments within the bond trust, the portfolio manager has the ability to shade weightings among these sectors or duration in the bond trust; with regard to the views of the asset allocation committee, within the balanced and the longer balanced trust, overweights and underweights in a modest fashion are used to reflect the views of the asset allocation committee. He noted that with the glide path portfolios for Alaska, given the emphasis on tracking error and risk control, the glide path allocation is adhered to.

MR. SHRIVER reminded that board of the importance of the investment horizon which is taken into consideration when making the recommendation to implement these enhancements. He stated that this really is a long-term investment horizon, not looking out six to 12 months where interest rates might be, but where rates will be over the next six to ten years. He said the firm believes that from these low levels higher interest rates will occur, and this will be a beneficial profile for the bond trust.

MR. THOMPSON provided a brief update on assets under management. He stated that total assets are roughly \$3.5 billion today, up nearly \$300 million from this time last year. T Rowe Price manages 16 options for Alaska. MR. THOMPSON said that he and Mr. Shriver are responsible for all the asset allocation portfolios, which is roughly \$2.6 billion, with the bulk of

the assets remain in the balanced trust with the remainder in the long-term balanced fund. The two together are 70% of the asset allocation assets, with the remaining 30% spread across the target retirement trust.

MR. THOMPSON then turned to performance focused on the one year, with the balanced trust up about 5.8%, and the long-term balance, because it's higher equity allocation, up about 7.35%. He noted that the 150 basis point difference again, is principally from the equity weight. MR. THOMPSON stated that over the past year U.S. equity markets are up 14% while non-U.S. equity markets were flat over that period, and U.S. equities returned in the high teens on an annualized basis for the past seven years which probably won't be seen going forward.

DR. MITCHELL asked about the symbol of T. Rowe Price. MR. DYER responds that this goes back prior to our relationship with Alaska. Jim Riepe, the vice-chairman at the time, was brought in to grow the defined contribution plan business, and came up with the bighorn sheep. The thinking is it's sure-footed in a wide variety of terrains and then underneath that was the tag line, which we continue to use, which is "Invest with Confidence." MR. DYER described the goal was to get clients and have them for a long period of time, which has been successful with Alaska because T Rowe has been fairly sure-footed across a wide variety of terrains.

MR. BADER noted that ARMB has about \$700- or \$800 million in assets not included in the presentation today: a small-cap mandate and two stable value mandates. He stated that a presentation on small-cap, which has had a change in management, and a presentation on the stable value and interest income funds would be scheduled for the next Defined Contribution Plan Committee meeting. .

COMMISSIONER HOFFBECK noted that looking at retirement and investment, how does one invest leading into retirement? A consideration is that having a defined benefit plan, knowing that a large percentage of your retirement would be covered by your benefit plan really changes that glide path. And if there was some way to create a metric where somebody that said I'm going to have 70% or 80% of my costs covered by my defined benefit, I might want to invest a little bit more aggressively, which glide path should I actually be on.

MR. DYER replied that T. Rowe manages the retirement date funds for the New York State retirement plans, and the same issue has been discussed: when you put them all sources of income together, including social security, and other retirement accounts, the thinking was yes, at the individual level accept a higher equity allocation because those other sources have more fixed income characteristics. So there is validity to that.

MR. BADER's stated that your defined benefit is almost like your fixed income characteristic, then you can take a lot more risk with your equities. He noted that it would be a worthwhile project to revisit for a presentation when we have the stable value and small-cap presentations, along with an update on the impact of the required distribution on the federal level. MR. BADER stated that we have a glide path that contemplates that you take 4% of your original amount and then increase the withdrawal yearly by the rate of inflation, then calculate the likelihood that you will outlive your money or not outlive your money. However, when you get into the years out, the required minimum distribution is greater than 4% and then what is the

impact. MR. BADER requested that T Rowe Price be thinking about that for the next presentations.

VICE-CHAIR TRIVETTE agreed with Mr. Bader. He noted that the DC Plan Committee is now working with DRB to get some idea of what our DC members understand and what they know about, but it might be another year before they have good data separated by DC versus DB on this.

MR. BRICE inquired on the change allowing investments into Roth IRAs. MR. SHRIVER clarified that the State just approved the addition of having Roth-deferred compensation plan for the State. MR. DYER noted that if you would offer the Roth, individuals would be able to invest in the Roth through the State, and then the question is what would be the underlying investments that they would be able to choose through that vehicle.

VICE-CHAIR TRIVETTE recessed the meeting from 2:52 p.m. to 3:03 p.m.

12. State Street Global Advisors

MR. BADER introduced Rosalind Jacobsen and Ric Thomas of State Street Global Advisors, who have a number of investment mandates that they operate for the Board.

MS. JACOBSEN introduced her colleague, Ric Thomas, who is the head of strategy and research for SSGA's asset allocation team, who will present two of the strategies in particular that are in the newest group of strategies that SSGA manages on behalf of the State of Alaska, the managed volatility strategies. She stated that Mr. Thomas was one of the chief architects for developing this strategy launched by SSgA in 2007.

MR. JACOBSEN provided an update on State Street Global Advisors: State Street Global Advisors is a 2.45 trillion with assets under management, with a broad range of investment strategies. She noted that the firm has 2,400 employees worldwide across 27 global offices, which allows the firm to have employees in the time zones where the assets are being managed, and also allows 24-hour trading capabilities. She said SSGA has a hundred billion in assets under management for alternative beta strategies.

MR. THOMAS described the concept of the strategy of low-vol investing is that it's low volatility, noting that the exciting thing is these portfolios have a beta of around .7, .6, maybe at the high end .75 relative to the equity market. He said that what that means is that you could potentially allocate more money to the equity market than otherwise would be the case and maintain relatively the same risk.

MR. THOMAS next described the assets under management: with regard to equity advanced beta, factory-tilted portfolios are about \$70 billion as of the end of December of this year, low-vol total is about \$6.8-\$6.9 billion - up from zero in 2007. He noted that this is a relatively new initiative, but now with seven solid years of performance it's done exactly what had been hoped for. MR. THOMAS described the objective of the strategy is to give market-like returns, not trying to outperform the market here, just market-like returns.

DR. JENNINGS inquired about others that have approached the minimum volatility kind of idea by imposing industry neutrality constraints. He noted that by imposing an overall limit and yet trying to get the minimum variance, if there could be a comment on the choice made in allowing the industries to differ pretty radically from the underlying index versus using that as a constraint.

MR. THOMAS responded that it is correctly pointed out there are absolute constraints, not benchmark relative constraints, which means in having a low total volatility portfolio, there is probably going to be some tracking error associated with that. He noted that the portfolio is built in a benchmark agnostic fashion, to construction the lowest vol portfolio possible. MR. THOMAS pointed out that the more benchmark relative constraints put in the portfolio, the more it acts like the benchmark, and the tighter industry constraints are imposed and the tighter that capitalization constraint in the limit imposed, the portfolio will become like the cap-weighted index at the end of the day.

MR. THOMAS next described the ex-ante - ex-ante being the Latin word for predicted, predicted beta and reduction in risk. Predicted beta is about a .75 beta, but we're generally around a .6 beta to the marketplace. It moves around a bit, going up to .75, even close to .8 at one point, but generally around .6. The reduction in risk is around 30%.

MR. SHAW noted that there is a lot of data on the betas and wondered how do you correlate it going from December '08, January, February and March '09. MR. THOMAS explained that the strategy in total return space is still going to show a correlation to the market and it's probably going to be greater than .8 on average. It's generally going to be higher. The correlation will fall if there's either a meltdown or a melt-up in the marketplace. That's when the correlation will fall down to about that .7 level. But it's hard to get the correlation much lower than that, since inception the strategy has outperformed by 85 basis points. But the volatility reduction is the key, down 32%; 11.88 versus 17.51.

VICE-CHAIR TRIVETTE inquired how far back the backtesting looked. MR. THOMAS replied it was originally backtested back to the early 1990s at the start of the strategy. The hardest period to ever be in the strategy would have been 1998 and 1999 when was some significant underperformance, but you just hoped that investors would hold on. What you don't want are people to then sell out after a bad year and then miss the fact that it was a bubble. MR. THOMAS continued with the review of other strategies, including global and emerging markets, which has performed pretty well.

MS. JACOBSEN asked Mr. Thomas to talk about risk mitigating strategies since managed volatility is a very effective risk mitigating strategy, but it is one type of strategy in a wide range, and how will this perform vis-a-vis other potential downside risks production strategies. MR. THOMAS said he has seen investors take equity exposure synthetically, doing things like buying swap options or call options, and if the market falls significantly it doesn't lose money, just your premium, and you participate in the upside. He said that the problem is that those are negative-carry positions, because you have to buy the call premiums, and that takes the distribution of the equity market – in just trying to slice off the tails, you get something a little bit narrower. The

problem with doing that is then you get off the upside, which is the whole reason you're in the equity market in the first place is to benefit from the upside.

VICE-CHAIR TRIVETTE inquired as to how much money is in State Street in this area?

MR. THOMAS replied with the exact methodology that we went through we have about \$3.5 billion or so, in advance beta in itself we have \$70 billion, other risk-weighted indexes another \$3 or \$4 billion - it's almost about \$7 billion total in low-vol type investing.

DR. JENNINGS commented to the Trustees that this product has broader academic support and they're not the only people doing this. There are a number of research hook points that they could hang their hat on to kind of tie to this; that would probably contrast with the Zebra, which is probably a bit narrow. There is academic support for it, but this one is meaningfully broader. Another of your managers, Analytic, has the kind of industry-neutral approach to this, this low volatility. He noted there are a number of slight variations and implementations, but would characterize it as fairly broadly supportive in the academic literature.

13. Prisma Capital Partners/KKR

HELEN MARIE RODGERS provided introductions of herself and her colleague, Eric Wolfe. She noted that she would provide an update on the firm, and then turn the presentation over to Mr. Wolfe to talk about the ARMB investment with KKR and also some other investment strategies.

MS. RODGERS stated that the group at Prisma has been together for 11 years, the group itself has 70 people and it's housed within KKR, which is the global private equity firm with 600 executives around the world in 15 countries across five continents. The said assets under management is now \$10.6 billion, predominantly institutional assets. She reported strong outperformance over the cycles, so the composite is the composite of the multi-manager, multi-strategy portfolios, the bulk of assets under management; this composite has outperformed the HFRI hedge fund of funds index by 607 basis points annualized, and T-bills outperformed by over 1,000 basis points annualized since inception of the composite in 2009.

MR. WOLFE reviewed the performance of the program in two parts: the first part is the more diversified part of the program which invests in hedge funds, including the co-investment effort with ARMB, then the Apex product which is a way to co-invest with managers and some of their best ideas in public equities.

MR. WOLFE provided additional background on the conditions in the markets for hedge funds, noting that conditions for hedge funds have been pretty good over the last six months. He described the firm's niche in tactical trades which is asking a fund manager to do something in a more concentrate way for clients, and to do it at a more economic cost for clients. This has been a big contribution to the ARMB account. He noted that a lot of excitement in the hedge fund program is outside the United States right now, particularly Europe. MR. ERLENDSON inquired how the niche opportunities are identified given the plethora of opportunities that are there. Are

these things that have done well recently or are they things that are cheap and you take a view towards a feature that they're going to do well going forward?

MR. WOLFE replied that most of the things are the latter - most of them are not chasing things that have done well recently; most of them are looking at where is there very significant value. The most successful one that we put in the portfolio was investing in Chinese convertible bonds before the Chinese market rallied so very significantly in the last nine months. The market in China had done nothing for years and we thought that the convertible bonds were a very inexpensive way to get outside participation in the market with downside protection because of some of features of those bonds.

MR. WOLFE then described can see the performance of the program over a variety of different months and years. He stated that Q-1 through March 31st was up 4.07%, so March was also a good month for the program and April is also turning out to be a reasonably good month. So when you look at what's driven performance for 2014, for the first quarter it's been very good relative to equities, relative to bonds, relative to the long-term strategic benchmark you all have set out, which is 70% equities and 30% bonds. MR. WOLFE also reviewed attribution, updated on central bank policy and outlined the position of the portfolio.

MR. WOLFE then turned next to the second sleeve, which is a bit smaller and is a drawdown sleeve of the program called Class B. This is a program is really to look at trades and ideas that can generate a very significant yield, sort of 10-plus percent, 10% to 20% type yields, and in co-investing alongside our hedge fund managers or alongside KKR in some of those transactions. ARMB has a have commitment of \$100 million and Prisma has drawn about 20% of that to date. Some of the capital has been allocated to deals in the last month, and it's expected to be about 10 to 20% per quarter that we draw against defined transactions. He stated that the general nature of the transactions, is that they are always inside five years and they are always return targets of about 10%. MR. WOLFE noted that most of the transactions to date are couple-of-year transactions; they're not five- or seven-year transactions.

MR. WOLFE then described the strategy objectives and the returns of the program. There's been relatively smaller draws to date, but basically the objective is to be able to do somewhere near 1% a month. Some of the transactions, like the KKR Turbine Investors, the returns are a little bit back-end loaded so it's slightly less than that at the beginning, whereas the Axonic transaction pretty much accretes that at 10 to 13% a year.

MS. RODGERS next moved to a newer strategy that's been developed called the KKR Apex Strategy. She noted there had been research that's been published going back over 20 years about whether if you were to invest in the highest conviction ideas of long/short equity managers, would you generate additional alpha, would your portfolio have generated additional alpha? And there was compelling enough evidence that that in fact was the case if you invested across the top five best ideas or highest conviction stocks of long/short equity managers in the industry that that would be the case. MS. RODGERS the firm has been investing in the long/short equity space for 11 years, with the original team prior to that for another seven so there was a long track record of doing it. She stated that after taking a look at the data, on the basis of that data, the additional alpha generated was compelling enough to create a strategy.

MS. RODGERS explained that thirteen long/short equity managers across our platform who we have the highest were requested to invest their three highest conviction ideas and set up a managed account. Essentially what you get is the diversification across thirteen different long/short equity managers, but at a very low fee that's comparable to any single long/short equity hedge fund manager. She stated this is extremely cost-efficient, but also a way of generating alpha across your best ideas managers and their top three best ideas. This started with \$100 million of KKR balance sheet capital on January 1st, and the strategy has performed extremely well; Vishal Soni manages the team.

MR. WOLFE described the 11-year history of investing in sort of specialist equity managers, trying to figure out can we leverage, get a vehicle that our clients can benefit from their top ideas, and so that was really the genesis of this. He noted that these managers were asked if they would, instead of investing in everything they do, which is usually 25, 50, 100 different stocks, really just pick their three highest conviction ideas and trade those three ideas for us, and we can create a portfolio of these three ideas from a dozen hedge fund managers.

MR. ERLENDSON asked about how managing the sector exposures embedded in this concentrated approach given that there are some would argue that getting the sector call right is more important than the individual security selection. MR. WOLFE answered stating that there is value in setting the sectors and geographies broadly, sort of the macro cult as well as the net and gross exposure. He stated that historically, in managing the long/short equity book, picked managers in different regions, different sectors in order to come up with the portfolio as a whole. So most managers aren't generalists invested in every sector. We have a very disciplined macro process that we implement every quarter to think about where we want to position the portfolio, the bigger portfolio from a strategy perspective; and then within each strategy, what are the areas that are most exciting to us.

MR. WOLFE continued with a description of the Apex program, following that same process, but also looking at where all of the managers are positioned. And so we know when we look through to the sector positioning of every long/short equity manager in our platform, that's sort of the starting point for where we want the Apex fund to be positioned. And we get there through the hedges, rather somewhat through the long portfolio, but also through the hedges so that our net exposure of Apex looks very much like our net exposure of our entire long/short equity program.

DR. MITCHELL inquired that when conducting position level analysis in constructing this, did were there 30 to 50 stocks of high conviction that all did well or all returned about the same, or were there three home runs and the rest were not as good as hoped? MR. WOLFE responded that taking a look at the Apex program and then historical data, there are a series of home runs, a lot of them that are okay, good performers, and some that were underperformance. That's true of the portfolio we manage for you. I think it's true of most investing portfolios sort of have that distribution where half of your return is driven by your home runs and the rest is risk-managed.

MR. WOLFE continues with the Apex program. Page 27, the average stock outperformed the equity markets by about 680 basis points, or 6.8%. But each of the top five positions

outperformed the index very nicely through time. And this is an average of all of them through time. It's really quite significant amount of outperformance. And within an Apex we're trying to capture that in a material way.

MR. WOLFE described the access to deep fundamental and specialized research with this portfolio, and further described the construction of the portfolio. He noted that there is control over the long book to avoid four of the managers liking the same security. The first one to get it gets it, and then the others miss out on it and have to go to their sort of next highest conviction idea. MR. WOLFE continued that what you end up with is a portfolio of 30 to 50 stocks on the long side, a series of six to 12 different short instruments or short baskets. Our long exposure will be between 100 and 125%, so we wanted to give some additional exposure to those long alpha ideas beyond 100% and shirk away a lot of the market risk, sector risk; the unwanted market and sector risks. And so you end up with a very nice balanced portfolio that has about 40% exposure to the markets, which fits very well within the framework of what you set out for your hedge fund policy.

MR. ERLENDSON wondered if Mr. Soni brought a team of people with him, or is he getting familiar with the existing folks at KKR? MR. WOLFE responded that he did not bring a team of people since there was already a very established risk team with three of the four members of the risk team working at significant hedge funds prior.

DR. MITCHELL inquired whether KKR Prisma staff have money in this product. MR. WOLFE replied that they do, over \$10 million across the firm. . The only thing out there that's been trying to capture best ideas in any similar way, there are a couple of firms that have done 13F products. But the problem you have there is that they wait until the 13Fs are filed. And so there's a time delay which is shown to be a substantial deterioration of alpha; you'd wait for those 13F filings.

MR. BADER explained the reference to 13Fs; that it's essentially a hedge fund filing with the SEC and disclosing their holdings. He said staff has reviewed strategies that are reliant on the 13F, and they seem to have a pretty good record, but this is a far preferable way to access that information if you can be dealing directly and have insights into the long/short hedge fund managers.

VICE-CHAIR TRIVETTE commented that it is a very unique strategy in terms of his understanding and looks forward to seeing how it works out over the next couple of years.

RECESS FOR THE DAY

VICE-CHAIR recessed the meeting at 4:21 p.m.

Friday, April 24, 2015

CALL BACK TO ORDER

VICE-CHAIR TRIVETTE reconvened the meeting at 9:00 a.m.

14. Callan Associates, Inc.

MR. ERLENDSON provided the following performance presentation to the Board. He noted that 2014 was an unexpectedly good year, the short story is the pension funds have done very, very well in terms of meeting objectives. With a complex structure with multiple managers, there are clearly a couple of managers who may be below their benchmarks, but when you add it all up, the fund asset class by asset class total fund is doing very well relative to objectives.

MR. ERLENDSON described a historical look at the long-term inflation rate of 4%, but noted that this number is skewed by the big spike in the late '70-s and early '80s. Inflation has been on a downward trend for the last 25 years, and to get back to the long-term average, inflation would have to double. He stated that Callan sees no immediate fear of a big rise due to excess production capacity around the world; prices have been declining in Europe, the strength of the dollar and a growing economy here.

MR. ERLENDSON continued with look at economic trends and data including employment growth, asset class performance, and the dollar strengthening significantly against foreign currencies. He noted that 2014 was the sixth year in a row with positive equity returns which has happened once before in the late 1800s. MR. ERLENDSON stated that ARMB has a defensive orientation in the portfolio so that when things eventually head south, there is protection on the downside.

COMMISSIONER HOFFBECK asked about what the exposure is to the strong dollar and what happens when the euro turns around. MR. ERLENDSON said he could not give a quantified exposure, but will get back with that answer. He noted that the vast majority of your non-U.S. managers don't do much in the way of currency hedging, so that when and if the dollar starts to weaken there should be a rebound in their returns.

MR. ERLENDSON continued reporting on returns in different parts of the market. The high yield market, high yield bonds declined about 1% in the fourth quarter. There was a very difficult equity market in the fourth quarter. The other aspects of the bond market were all relatively strong returners. The interesting is that the range of allocations and fixed income had come down. Unlike ARMB, most others have also loaded up on equity like risk in the remaining bonds in their portfolio. Here there's a relatively high quality portfolio with minimal exposure to these riskier types of assets. Real estate is another strong performer and taking a look at various ways you can get exposure to real estate. The private markets in the first two line items, and then we look at publicly traded real estate. REIT's, Real Estate Investment Trusts and the like where you have a security that is valued and trades daily, whereas in the top two lines those are investments that trade by appointment.

MR. BROWN presented the performance of the fund, illustrating the asset allocation of the PERS portfolio relative to the target allocation. He noted that staff does a good job of keeping the portfolio very close to the targets, using PERS for representative purposes, but this is the case for the other plans as well. MR. BROWN noted that the portfolio is performing well, looking at the attribution over the last year, both the managers and the asset allocation added value relative to the target index of 81 basis points. Looking at trailing period performance, he stated that although behind the target index for the quarter, the fund is well ahead for the last year, last three, five and ten years, and for the very long-term over 23 years.

COMMISSIONER FISHER inquired what the target index is. MR. BROWN described the policy index designed around the target asset allocation that takes the allocations within various asset classes from the target allocation. The return is based on the underlying benchmarks for indices that represent each of those asset classes. MR. ERLENDSON added that in the domestic equity line the target is 26%, and is weighted according to exposure to large- and small-cap stocks to the Russell 3000. Passive indexes are used to determine on a fixed rate using these weightings through time what is the index return, add them all up, and then that becomes your target rate of return. COMMISSIONER FISHER thought it would be helpful have a list of those benchmarks for each of the asset categories. MR. ERLENDSON said that could be provided in the next quarter's report.

MR. BROWN continued his report on the returns, just mentioning that the trailing period performance is very good over all periods with the exception of being slightly behind for seven years which reflects the calendar year 2009. Looking at the fixed income portfolio, he noted that the portfolio is more intermediate in nature and continues to do well relative to its benchmark over time, but is in the lower part of the peer group because those tend to have longer duration. A lot of public funds, while lowering allocations to fixed income, have also been loading up the risks within those portfolios as well.

MR. ERLENDSON stated that the portfolio is positioned to be protecting principal in the event of rising rates, which is the single greatest risk to bond investments. ARMB has done better than the target which states the risk exposure, but because interest rates have been declining, declining, declining, the target and the results are at the bottom of the ranking. He said this is where informed judgment is important, because you're not trying to be the highest returning pool of fixed income capital in the world, you're trying to meet your objectives based on your risk tolerance. Callan would argue that you have achieved that objective by being averse to the risk of rising rates.

MR. BROWN reported that Mondrian continues to trail its benchmark noting a couple of reasons for that: the strength of the dollar and purchasing power parity. MR. BRICE wondered whether or not Mondrian's been sticking to their strategy, whether they're kind of going outside of the scope of where we had asked, or whether they're sticking to their game plan. MR. BROWN said the short answer is that Mondrian has not made any changes that are inconsistent in any way with their philosophy and process.

MR. BROWN continued a quick review of managers that have underperformed over the short-term, but noted that McKinley Capital, who has been on the watch list, has outperformed the fourth quarter of the last year and for the entire year outperformed their benchmark by 1.7%. He noted that small cap domestic equity continues to do well, although Luther King and Barrow Hanley have struggled. MR. ERLENDSON noted that research staff visited with Luther King and a report will be forwarded to Mr. Bader and staff. MR. BROWN mentioned that within the domestic equity that small-cap continues to do very well, ahead of the benchmark for three and five years; outperformed the overall benchmark six of the last eight quarters.

MR. BROWN stated there were a couple of managers within the small-cap pool that have struggled: Luther King, as mentioned and Barrow Hanley, who has no exposure to REITs and utilities, and that hurt.

MR. BROWN reported that real assets did not have a great quarter, but this is an area where the focus is really long-term, and that is quite positive. He reported no issues in the absolute return area.

Lastly, MR. BROWN reported on the defined contribution plans and briefly reviewed the performance of T Rowe Price who had provided an extensive report to the board yesterday. Lastly MR. BROWN reported on the defined contribution plans. MR. ERLENDSON added that one of the shortcomings of these sorts of exhibits is that people will just look at one box and one color, but there are three things to look at. For example, if you look at the 2015 trust, you'll look at that five-year risk and you'll see that the ranking is 20, meaning only 20% of target-date funds in the 2015 range have risk levels that are higher. And one might look at that and think, oh, that's bad news. But then go over to the left and look at their five-year return. The five-year return is in the top 5%. And so what we want to look at is for the amount of return you get and the amount of risk you take to get it, then you go all the way over to the right under the five-year Sharpe ratio, so a risk-adjusted measure. And you put those, the return and the amount of risk they've taken, and you'll see that they have a very good ranking on a risk-adjusted basis.

MR. BROWN looked at the active managers and stable value and interest income, and reported no issues here. He noted that you do see red in the longer term performance of the RCM Socially Responsible portfolio, but if you're investing in socially responsible portfolio, it is expected that it's going to be different than the broad market and the benchmark, and you're likely investing in that for reasons other than just pure performance.

COMMISSIONER FISHER asked if this is measured against this KLD 400 social index, a socially responsible index. MR. BROWN says that it is, but the challenge there is how is the social responsibility managed within the index versus how that particular manager is. MR. BADER further clarified that it was a few years ago, that the KLD index was changed, so they were managing to a different index at that time. That's why the recent returns are in the green and the longer terms are not, because they had a mandate that was not consistent with that index.

MR. PIHL wondered, since we are on a fiscal year, if we could get the performance on the same basis since many times a market correction occurs in a quarter, and if we could get performance

on our calendar year basis it would be better. MR. ERLENDSON replied that Callan would work with the staff and make those adjustments.

MR. BADER added that one of the reasons why you see the lagged information is because contractually Callan was asked to provide returns of the fund at a certain date, but many of these asset classes don't provide returns for months after the close of the fiscal period. He stated that certainly the report can be more current on the public market asset class as like bonds and equities and it wouldn't necessarily reflect the return of the fund because that information isn't available. He noted that we're looking at December returns midway through April. MR. BADER said that in the report to the Board, the printed materials could be updated to illustrate that happened in an asset class or with a manager since then which would be a benefit to the Board.

15. Cash Equitization

MR. MITCHELL, State Investment Officer and Manager of Fixed Income within the Treasury Division of the Department of Revenue is introduced. He stated the goal of the presentation is to provide an update on the experience of the cash equitization program since its inception in 2006.

MR. MITCHELL provided a brief overview of the program noting that the purpose of the cash equitization program is to improve the long-term performance of the ARM Board portfolios by identifying cash positions that are in our equity managers' portfolios, then use derivatives, namely futures contracts, to equitize those cash positions and essentially increase the cash the equity exposure of the overall portfolio. MR. MITCHELL stated that this activity is outside each of the manager's portfolios, and their performance isn't impacted by this activity - it is captured within the asset class performance, but it is a separate function.

MR. MITCHELL said the amount of cash that our equity managers hold is restricted for two reasons: One, we're seeking equity exposure. Two, we don't want to pay our equity managers to manage cash because we can do that much more inexpensively ourselves. He said that it's important to note that they do need some freedom to have cash in their portfolios for frictional reasons. If we were constraining them to have no cash, they'd have to match buys and sells and that would be overly restrictive to their process. For large-cap managers the constraint is 3% cash, no more than a 3% position of the respective portfolio in cash; for small-cap and international equities, that is relaxed a little bit at 5%.

MR. MITCHELL reviewed the historical operations of the program, showing over time an experience of \$12 million in the black, which fell to about \$10 million in the red during the financial crisis and has come back. Through the end of March, he reported that cumulatively the return is \$21.7 million.

DR. JENNINGS asks if this is how the stock market has been performing, presuming that's what's going on here, not the frictional added benefit of equitizing.

MR. MITCHELL responded that the percentage is going to roughly correspond with the experience of the equity market. He said that theoretically the futures contract should largely capture the return of the equity market, but the percentage that we've been equitizing has been

declining over time, so its impact in terms of what might be expected from profit or loss has diminished as the percentage of the cash has declined. He noted that it started at about 90% equitizing, and that's drifted down, and the international equity component was removed early on so going from 9 to 30% is going to reduce the amount of impact.

DR. JENNINGS further clarified that what this says is that yes, value has been added over time, but there might be a different way to evaluate if the program is effective at doing what you've chosen to do. MR. MITCHELL responded that if you were really did a back of the envelope type of analysis it would suggest this has added about a basis point of returns over the program.

DR. JENNINGS asked where that shows up in the performance reports; is it benefiting the active program or is it benefiting the passive when we look at it? MR. MITCHELL responded he is not sure, but he knows it's captured within the asset class, so there's an account in our small-cap and an account in our large-cap, for example; both of those reside within domestic equities. He stated that this experience would be captured there and at the pool level you would see it. It's outside the scope of any individual manager's performance so it wouldn't be captured in that regard in active space. It's hard to really separate because you can measure the performance at the manager level, but then the other measurement is at the pool level so there isn't really a separation there.

MR. ERLENDSON confirmed that it's rolled into the asset class return, kind of the domestic equity piece rather than at the manager level. MS. LEARY added that it is also in the fund financial.

MR. MITCHELL concluded that one other component that's embedded in that number is a cash return component to the cash that's being set aside, which is a subset. You have to set aside more cash in order to engage in the program and that it is internally managed cash.

VICE-CHAIR TRIVETTE recessed the meeting from 10:17 a.m. to 10:18 a.m.

16. Asset Allocation

MR. BADER reviewed the information presented at the February board meeting when Callan Associates presented their capital market assumptions. Subsequent to that meeting on March 19th, Mr. Bader and Bob Mitchell met the Callan team and two members of the IAC to discuss the asset allocation recommendation to the Board. The asset allocation that recommended is in the packet before the Board.

MR. ERLENDSON then reviewed the process at Callan: every year beginning in late October the quantitative capital markets group begins collecting a lot of data, economic investment information. They start modeling and taking a view towards the capital markets. These are ten-year projections and this is for the ten-year period beginning January 1, 2015. Both arithmetic returns, which is if you went out ten years what would have been the rate of return for point, end point to end point, and geometric returns are used, because in modeling volatility is also

included. From year to year returns may be higher or lower, and so the geometric return reflects the compounding effect which also takes into account standard deviation, which is the third column of numbers.

MR. ERLENDSON said he met with the Investment Advisory Council, Mr. Bader and Ms. Hall, and one of the things that came out of this entire exercise is the efficient frontier, and the line that represents what is the maximum rate of return with the least amount of risk. He noted that those portfolios are represented by that line; for example, where we've got the PERS is plotted, it's at about 7.2% rate of return, but there are other portfolios that will generate a 7.2% rate of return. He continued the example illustrating that moving to the right creates much greater volatility and maximum return per unit of risk. He indicated that the ARMB portfolio plots right in that line and is an efficient portfolio. MR. ERLENDSON stated that you can't get a higher return without taking more risk.

MR. ERLENDSON stated that the other interesting thing is the assumptions for this ten years looking forward are essentially the same as they were a year ago. He reported that in working with the Investment Advisory Council, there is really no rationale on an asset basis to make any change in the current portfolio composition. He said this is something that Callan revisits internally every year and then again with Board staff and with the IAC every spring.

MR. BADER recommended that the Alaska Retirement Board adopt Resolution 2015-03 and 2015-04, which relate to asset allocations for the Public Employees', Teachers and Judicial Retirement Systems; Public Employees', Teachers' and Judicial Health Trust Funds; Retiree Major Medical Insurance Fund; the Health Reimbursement Arrangement Fund; and PERS Peace Officers/Firefighters Occupational Death & Disability Funds; PERS, TRS, and All Other Death & Disability Funds.

MR. BADER asks for a motion to approve.

MR. BRICE moved to adopt resolution 2015-03. MS. HARBO seconded the motion.

A roll call vote was taken, and the resolution was adopted.

MR. BRICE moved to approve resolution 2015-04, Alaska National Guard Naval Militia Retirement Systems. MR. PIHL seconded the motion.

A roll call vote was taken, and the resolution was approved.

Accounting change to holding accounts

MR. BADER explained the inconsistency over the years regarding adopting asset allocations for these holding accounts; in some years the Board adopted an asset allocation directing the funds to be held in cash. He described these are funds that are in transit between an employer and Great West recordkeeping. MR. BADER said it has been determined that these funds are really

not under the fiduciary responsibility of the Board until they are in fact with the investment manager, and as a consequence a resolution that sets an asset allocation is no longer necessary.

MR. BADER made the recommendation that the Alaska Retirement Management Board repeal resolutions 2006-21 and 2014-09, which set asset allocations for the SBS cash transition fund, the DCR-PERS and DCR-TRS holding accounts, and requested a motion to that effect.

MS. HARBO moved said recommendation. MS. RYAN seconded.

A roll call vote was taken, and the recommendation was passed.

INVESTMENT ACTIONS

A. DC Plan – 2060 Target Date Trust

MR. BADER stated that the first item on investment action is, as the chair of the DC Committee reported yesterday, the addition of another target-date fund, the 2060 target-date fund. He stated that this information and this request was shared with Commissioner Fisher as required by statute to confer with the Department of Administration on changes in the asset mix for the defined contribution plans. Commissioner Fisher was supportive of this addition, as was the committee.

MR. BADER requested a motion that the Alaska Retirement Management Board direct staff to add Alaska Target Retirement Fund 2060 Trust to the current range of options in the DC plans.

MS. RYAN moved to adopt the 2060 target date retirement trust. MR. BRICE seconded.

A roll call vote was taken, and the motion passed unanimously.

B: Prisma Capital

MR. BADER stated the next item relates to Prisma Apex equities strategies program. Prisma Capital, or Prisma KKR, made a presentation to the Board yesterday, gave background on the investment returns of Prisma in general. Board members may recall that in 2013 the ARM Board adopted a more opportunistic and less constrained approach to absolute return, and Prisma has determined that there is academic research to suggest that high conviction portfolios of hedge fund managers have had significant outperformance. We have found that to be the case as well as staff. KKR Prisma analyzed ten years of their own data of their hedge funds and reached the same conclusion. The Apex equity strategy is to seek and capture the excess returns of their manager's highest conviction ideas. The strategy targets the net return of 9 to 11% with 8 to 12% volatility and will have an expected equity beta of .4. The strategy will offer monthly liquidity, and lower fees than those typically charged by the underlying hedge funds. Staff

recommends expanding the KKR Prisma investment mandate to incorporate an allocation to the apex investment strategy.

MR. BADER requested a motion that the Alaska Retirement Management Board direct staff to negotiate an amendment to KKR Prisma's contract to allow for investing up to \$100 million in an Apex equity strategy.

MS. HARBO moves the motion. MR. PIHL seconded.

A roll call vote was taken, and the motion passed unanimously.

C. Zebra Capital Management, LLC

MR. BADER introduced the next item as it relates to the Zebra Capital Management presentation made to the Board yesterday. He stated that Board members may recall that in October of 2014 at the education conference Roger Ibbotson discussed topics of asset allocation and risk premia, with particular focus on risk premia for capturing what he called the popularity premium.

MR. BADER reported that in December 2014 and in January 2015, staff participated in several conversations with Zebra Capital to discuss their investment research and strategy. Zebra's research, as presented yesterday, indicates that the popularity premia is a powerful predictor of performance in the micro-cap space. Staff noticed that as well. We asked Zebra to explore the potential for creating an investment option micro-cap based on the popularity strategy. They presented that to the Board yesterday. Subsequent to that, we asked Callan Associates to conduct a review of the strategy. In March of 2015 Callan completed their analysis and concluded that although there is no live performance, the backtesting approach and methodology seemed reasonable. Callan further concluded that Zebra implements a unique investment process which is complementary to the micro-cap strategies the Board currently has in place. On April 1, the offices of Zebra Capital were visited to confer with their staff and look at their capabilities internally, and are satisfied that this is a proper investment for the Board.

MR. BADER requested that the Alaska Retirement Management Board hire Zebra Capital to manage a \$75 million micro-cap strategy subject to successful contract and fee negotiations.

Moved by MS. HARBO and seconded by MR. PIHL.

COMMISSIONER HOFFBECK requested clarification on the fees. The 65 basis points seems fairly high. MR. BADER responded that 65 basis points hasn't been agreed to, but that 65 basis point is comparable to what our micro-cap managers have and the fees are comparable to what others charge in small-cap area. He stated that this is unique in terms of helping them kick off a strategy, and he expects to have robust discussions about fees. MR. PIHL said he recognized that while this is new, he knows that a contrarian approach to investing has been and can be highly successful.

DR. JENNINGS commented he wanted to clarify some of his questioning yesterday that may have suggested there was a casting of doubt on it. He stated that he thinks \$75 million is appropriate and it complements the two existing micro-cap managers. He also stated that having more micro-cap is a good thing and as for fee, that the initial investors ought to get discounts, and they potentially get additional capacity reserved are things that probably should enter into the negotiations. DR. JENNINGS thought the translation of the research to actual implementation, you shouldn't expect 10% outperformance, but there should be some shrinkage. It's still a good program and will complement the existing managers. DR. JENNINGS suggested a bit of a go-slow approach, which may have been done with the other micro-cap managers where we didn't give them all the money up-front, and that will help address the implementation and market impact concerns that were talked about yesterday.

A roll call vote was taken, and the motion passed unanimously.

D. Investment Advisory Council Position

MR. BADER stated that the contract with Dr. Mitchell as a member of the Investment Advisory Council will expire at the end of June. He said the Board has the option of doing a search or establishing a new contract with Dr. Mitchell. MR. BADER reviewed Dr. Mitchell's long association with the State of Alaska and this Board and the previous board, ASPIB: Dr. Mitchell's association with the State of Alaska goes back 1990s as an investment manager for Wellington Fund, as CIO for Massachusetts PRIM, and for a private foundation. MR. BADER noted that he is a long-standing feature with this Board and continues to offer significant contributions and his wisdom and experience will be hard to replicate. MR. BADER recommended that the Board to simply offer Dr. Mitchell a new contract three-year contract.

Motion moved by Ms. Harbo, seconded by Mr. Brice.

COMMISSIONER HOFFBECK, asked for additional background on the role of the Investment Advisory Council. MR. BADER explained that the Investment Advisory Council is a permissive statute that says the Board may have an Investment Advisory Council with up to five members. The Board does have some policies which define the role of the council. MR. BADER stated that in his judgment the role of the council is not to act as a shadow CIO, but to be a resource for the Board and to primarily act as bumpers, if the Board or staff should want to take the Board in a direction that is not consistent with best practices in the world of managing retirement assets, to be an alternative resource for the Board like Callan Associates, other consultants and staff, and to provide input on major policy issues that come before the board such as asset allocation, investment policies and manager review.

MR. BRICE said what he appreciates about the IAC and Mr. Mitchell in particular is that they're not afraid to ask the questions that only folks with decades of experience in the industry will understand or know, and he has found Mr. Mitchell to be a very good asset for this Board. After talking to a trustee on a different pension board who was asking about how the checks and balances work, I see the IAC as a check and balance to ensure that Callan is going down the right road and making sure that the trustees are moving in an appropriate manner. So it's just another safeguard for our beneficiaries.

A roll call vote was taken, and the motion passed unanimously.

UNFINISHED BUSINESS

1. Disclosure Reports

MS. HALL says that the required disclosure report is in the packet. And other than routine transactions that have been vetted by staff there's nothing unusual to report.

2. Meeting Schedule

The meeting schedule is in the packet. MS. HALL says that the big change is the date for the Education Conference being set on October 22nd and 23rd in New York City. A confirming e-mail will be sent around to everyone copying the appropriate staff members who keep calendars so that everybody is in line on that.

3. Legal Report

MR. GOERING gives the legal update. In response to Trustee Pihl's requested update on the status of the audit compliance regulations. MR. GOERING reported that he consulted with the Department of Administration and with the Department of Law attorney and was advised those regulations are right now number two on their priority list and will be moving to number one very soon when the top priority project gets completed. The intention is to seek this Board's input on those regulations at an appropriate time in the future, and to some extent in a way that best meets the needs of the Board in terms of their desires. There will be a public process for adopting regulations which involves a public comment period, so there is a process to go through.

NEW BUSINESS

None.

OTHER MATTERS TO PROPERLY COME BEFORE THE BOARD

MS. RYAN would like to go back to the calendar and would like to recommend a Defined Contribution Committee meeting in September. It's a good time to look at the numbers that will be coming in. There was much business today and yesterday concerning the DC, so would recommend that that be put on the calendar.

VICE-CHAIR TRIVETTE stated there was a huge amount of information from DOA and a lot of it is work in progress and so it would be appropriate to add that to the calendar for the September meeting with the other committee meetings that are scheduled for Fairbanks in September.

MR. BRICE asked if we need to address the May actuary committee. VICE-CHAIR TRIVETTE: replied it is still set for the week of May 11th, with no time yet set.

MR. BADER stated that a Defined Contribution Committee meeting was set for September. If items come up, particularly the deferred compensation IRA, Roth program that we haven't met with the Department of Administration yet, but it may be possible to take some action on that prior to September. Hopefully that does not preclude a meeting before then, which VICE-CHAIR TRIVETTE replies that it does not. And as the chair of that committee, if there's a need to meet with the department to get it going, you know where to find him. Good question, but not an issue. And there are only four of us on the committee. Three live in Juneau.

PUBLIC/MEMBER COMMENTS

MR. WORLEY wished to recognize two employees for the Division of Retirement and Benefits. One member, one employee has been with the State for over 30 years of which 12 have been spent with the Division of Retirement and Benefits. Her name is Vera Thomas. She has been an Accountant II with DRB during that whole time. Vera is usually the one that's responsible for distributing all the financial reports and the CAFRs.

MR. WORLEY stated the next person retiring is Mike Adams. Mike has been with the Division since September of 1988. He started out as a tech, served as an accounting supervisor and an Analyst Programmer III. Mike is currently in a Data Specialist II position, and has been our go-guy with implementation of SB141.

MR. WORLEY expressed the Division's appreciation to these two folks. They have been in very important capacities, that we're not just accounting, we're not just information systems, we're not just counseling; we're one whole division and we work all together. So when one person goes there's a heavy impact of feelings of loss that this person's going to move on, but at the same time we are retirement and we are benefits, so they're going to retire and benefit from that retirement.

DR. MITCHELL thanked the board for reappointing him to another term on the IAC. He looks forward to continuing to work together. There have been many notable achievements of the Board over these past two decades to be proud of and singles out four Board decisions in particular that have contributed to the past success of the fund and auger well for the future.

- Decision No. 1 is the decision to hire and retain a good staff. The more complex and diverse a fund is, the more important it is to have a competent staff. Under Gary's leadership and with the Board's encouragement and the Board's support, the staff has grown in maturity, in professionalism, in expertise and in creativity. It's the staff that works hard in good markets and worked hard in bad markets and does so with the highest standards of ethics. So the decision to hire and retain good people is paramount.
- Decision No. 2 is the decision to delegate. One of the Board's best moves over the past two decades was to give more authority to the CIO in investment decision-making. Committees are important and committees are necessary for many things, but even the

best intentioned committee can't manage a multi-billion-dollar fund on a day-to-day basis. The Board understood this and properly delegated more management authority to Gary and the staff.

- No. 3 is the decision to consider alternative investments. Among public pension funds, the Board was relatively early in its move toward alternative and private and nontraditional investments. The Board educated itself, the consultant weighed in, the staff did its due diligence competently, sized its investments wisely and wasn't afraid to be out there ahead of the pack as it was in a number of asset classes, such as agriculture.
- No. 4 is the active-passive decision. After many presentations and many discussions over many years, including even a few very heated arguments about the superiority of passive investment over active investment or active investment over passive investment, the Board in its solomonic wisdom made what in hindsight was the only reasonable and intelligent decision to continue to do both.

TRUSTEE COMMENTS

MR. PIHL commented that over the years he has had this great concern about the funding of the plan and the unfunded liability. He has had great concern of what has happened here in the last year, that we're on a track now where the unfunded liability is going to grow rather than be brought under more control, specifically the funding of 126 million and 130 for PERS and 130 for TRS in the next fiscal year which is such a reduced level as opposed to what it needs to be. What we heard from the actuary that the proposal or the projected in the following year for 2017 PERS is going to go from \$126 to \$79 million is a great concern, and he is not sure how you can get there with the unfunded liability growing.

MR. PIHL said he is thankful that the actuary committee is going to be looking at this and looking at how the actuary gets there, but he is concerned and continues to feel we're on the wrong course. Personally he would like to see the State boldly take the issue to the public, and given the budget crisis we're in across the state, look at dedicating a portion of the Permanent Fund income each year, for eight years or so. Million dollars out of the PFD earnings would be quite reasonable and be able to retire this liability over eight years to get this billion-dollar-a-year investment interest charge off our back and get the charge that's occurring across the state of \$5.7 billion additional cost, \$2.2 to the municipalities that everyone is going to pay across the state.

MS. ERCHINGER said she would like to thank Leslie Thompson from GRS and Dave Slishinsky from Buck for all the work that they did going into our new actuarial committee. They did a lot of up-front preparatory work for that and it is appreciated. MS. ERCHINGER also has significant concerns. This Board has, probably rightfully so given the extent of the State's overall budget issues, remained fairly quiet this year because it was such an active year last year, but it is important to continue to educate folks about the impact of extending the amortization period on the unfunded liability and how that affects the State budget as well as our local taxpayers.

COMMISSIONER FISHER stated that he looks forward to having the actuarial committee participate in looking at that. He said it is a worthy and an appropriate discussion and certainly

something to be focused on, but to the extent that there are suggestions on the record that the State and the legislature have made this dramatic change that has reduced the contribution from the State, it's important to recognize that was in the context of a \$3 billion investment from the State. COMMISSIONER FISHER said it would be inappropriate to hint that the State has not been prudent and cognizant of this unfunded liability and it has done a lot in the last year or so to correct it. He believed that it is important to recognize that contributions have been made which is not to say we can't have a discussion, but he does not think that the State is being irresponsible or the legislature is being irresponsible in the way it is being approached.

MR. BRICE briefly stated that one of the roles that Trustees play is to bring issues to the administration of the Division of Retirement and Benefits from the beneficiary groups, and he just wanted to let RMB and Commissioner Fisher know that there are some issues in terms of benefit coordination between retirees; that it doesn't seem like the retiree health care system is talking with itself when you have two State retirees receiving State retiree health care and they are having problems coordinating the benefits, so a heads-up. He further noted that he appreciates the two commissioners investing the time that they have.

FUTURE AGENDA ITEMS

None.

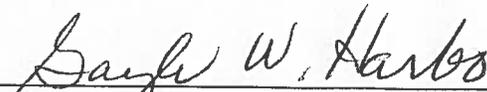
ADJOURNMENT

There being no objections and no further business to come before the board, the meeting was adjourned at 11:06 a.m. on Friday, April 24, 2015, on a motion made by MS. HARBO and seconded by MS. RYAN.



Chair of the Board of Trustees
Alaska Retirement Management Board

ATTEST:



Corporate Secretary